

APPARATUS AND METHOD FOR LOW PRESSURE WIREBOND

ABSTRACT OF THE DISCLOSURE

A structure and method for low-pressure wirebonding, reducing the propensity of dielectric material to mechanical failure due to wirebond stress. A low temperature alloy on the surface of a bond pad allows alloy bond formation to occur between the wire and the bond pad at reduced bond pressures and reduced thermal and ultrasonic energies. Preferred alloys include Au-Sn and Au-In. The Au-Sn alloy may be formed over the Cu bond pad, incorporated in an aluminum bond pad stack, or deposited on a bond pad having Ni-Au capping of Cu or Al bond pads.

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